

UPGRADE PAYBACK SCENARIO



Increase Efficiency of New Cooling Equipment

In virtually every situation, retrofitting or upgrading data center cooling systems increase energy efficiency. Plus, you gain greater comfort in having more reliable equipment that requires less annual maintenance. Here is one of four scenarios developed by Vertiv to address the costs and benefits of retrofitting.

SCENARIO: Upgrade New Cooling Units for Higher Efficiency

- 1MW Data Center in Columbus, Ohio
- Raised Floor
- 14 rows of 14 racks
- 10 new Liebert® DSE™ free-cooling units

SITUATION

You have new cooling economization equipment with no pressing need for upgrading. In this case, you're using the ultra-efficient Liebert DSE free-cooling economization system with advanced unit controls. Still, you want to consider ways to improve efficiency.

CHALLENGES

- You need a more efficient data center
- You want improved thermal monitoring and control

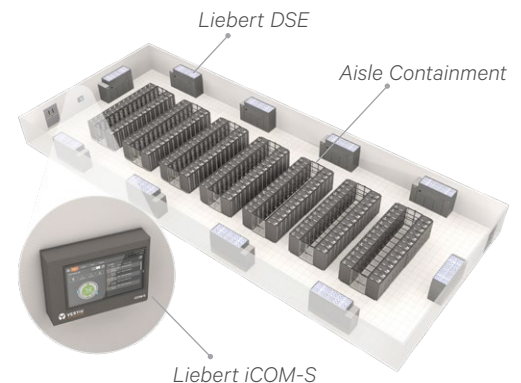
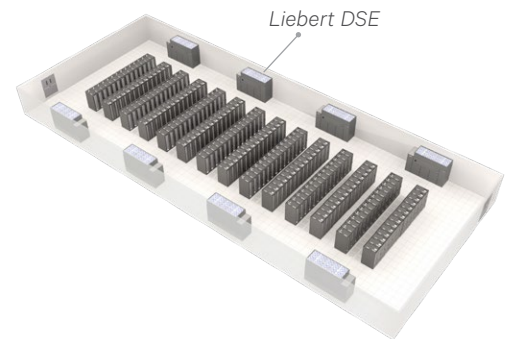
SOLUTION

- Add Liebert® iCOM-S™ system controls to harmonize the operation of multiple units for higher efficiency
- Add aisle containment for higher density and efficiency

UPGRADE COST: Approximately \$85,700

PAYBACK: 18 Months

- 55% of the investment cost is recouped in the first 12 months
- Annual cooling energy costs drop from \$182,858 to \$128,282 – a \$54,576 savings
- PUE drops from 1.19 to 1.15



CALCULATING THE PAYBACK

Annual Energy Cost of Existing Liebert DSE Units	\$182,858
Annual Energy Cost of Liebert DSE Units with updates	\$128,282
Annual Energy Savings	\$ 53,000
Equipment & Installation Costs Liebert iCOM-S and Aisle Containment	\$ 96,000
Payback in Years (net cost / annual energy savings)	1.5

For more on upgrading or retrofitting data center cooling equipment, visit www.VertivCo.com/Retrofits

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